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Review and analysis of agrarian reform and rural development

Note by the Secretary-General

The Secretary-General has the honour to transmit to the Economic and Social Council, as an annex to the present note, the report on the review and analysis of agrarian reform and rural development. Pursuant to Council decision 1981/185, the secretariat of the Food and Agriculture Organization of the United Nations has prepared the report in collaboration with other concerned organizations and bodies of the United Nations system.

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ANNEX

REVIEW AND ANALYSIS OF AGRARIAN REFORM AND RURAL DEVELOPMENT

Prepared by

The Secretariat of the Food and Agriculture Organization of the United Nations in collaboration with other concerned organizations and bodies of the United Nations system

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INTRODUCTION

Background and Scope of the Report

It will be recalled that the Economic and Social Council asked FAO for a report on land reform and rural development for consideration at its second regular session in July 1981 (decision 1981/106 of 24 April 1981). In the report prepared by FAO in response to the Council's request, FAO suggested that, based on the monitoring and reporting by countries under the WCARRD Programme of Action, a review and analysis of agrarian reform and rural development could be presented to the Council, according to the four yearly cycle of country reporting. The Council therefore decided, by decision 1981/185 of 23 July 1981, that FAO in collaboration with other concerned agencies of the UN system, should prepare for the Council a report entitled "Review and Analysis of Agrarian Reform and Rural Development" and that such a report be submitted to the Council every four years. The first report was submitted in 1984, the second in 1988 and the present report is the third in the series.

This report, like earlier ones, is a condensed version of the Third Progress Report on WCARRD Programme of Action, which was submitted to the FAO Conference in November 1991. In addition to the progress reports submitted by 70 countries on implementation of national policies on agrarian reform and rural development, information was also obtained from a number of concerned UN agencies for preparing the present report. In order to keep the report brief, detailed information on country experiences could not be included. More information can be obtained from the FAO Conference document C 91/19 entitled Third Progress Report on WCARRD Programme of Action.

The report is presented in seven Chapters. Chapter 1 briefly discusses the major dimensions and trends of rural poverty; Chapter 2 reviews the progress in agrarian reforms and their impact on rural poverty; Chapter 3 discusses the patterns and trends in rural employment; Chapter 4 considers the implications of agricultural policy reforms on markets, prices and access to inputs; Chapter 5 analyses the impact of human resource development on poverty and rural development; Chapter 6 discusses the relationship between environment, public policy and poverty. Finally, Chapter 7 draws together the main lessons from the experience of developing countries in their efforts to implement poverty alleviation strategies in the light of the WCARRD Programme of Action.

CHAPTER 1

RURAL POVERTY ALLEVIATION - MAJOR DIMENSIONS AND TRENDS

1. The trends in the magnitude and intensity of rural poverty in the developing world during the 1980s are briefly discussed below in the light of the overall policy environment. An analysis of changes in rural poverty between 1980 and 1987 is also presented together with some indicators of social progress.

(i) The Policy Environment

2. Economic policies and choices for rural poverty alleviation in many developing countries during the 1980s were conditioned by the ongoing debt crisis. All regions have shown increases in external debt to GNP ratios in the 10 years since 1980. Moreover, in response to the imbalances that led to the debt crisis, many developing countries initiated structural adjustment programmes in efforts to alter their economies in ways that were expected to be compatible with sustained economic growth. The situation improved for a number of heavily indebted middle-income countries, but remained serious for most developing countries. The debt crisis and structural adjustment policies had major implications for the rural poor in the developing world. It is from this broad perspective that poverty alleviation experience needs to be assessed.

(ii) Profile of the Rural Poor

3. The vast majority of the poor live in rural areas. Most of them are concentrated in areas with high population densities, such as the Gangetic Plain of India and the island of Java (Indonesia), or in resource-poor areas such as the Andean Highlands and the Sahel. Often the problems of poverty, population and the environment are intertwined. Earlier patterns of development and the pressure of rapidly expanding population mean that many of the poor live in areas of acute environmental degradation.

4. Vast numbers are landless or nearly so in South Asia and much of Latin America where the minifundio phenomenon continues to spread. Tenancy is common in many countries but the terms and conditions of lease are often highly unfavourable to tenants with no security of tenure. Large numbers of rural poor work as agricultural labourers, planting and harvesting crops for which they receive meagre wages. Since agricultural work is seasonal in nature, often there are long spells of under-employment or unemployment.

5. Pastoralists and nomads also form an important segment of the developing world's poor. They are extremely vulnerable to natural disasters and ecological degradation. Yet another group of rural poor is found in the small-scale fishing communities. Chief among the losers are the small-scale fishing people. Further, often the burden of droughts, famines and seasonal troughs fall disproportionately on female members within poor households.

(iii) Changes in Rural Poverty

6. According to an estimate in World Development Report 1990 based on an upper poverty line of US$ 370 per person per year, 1,115 million people were poor in the developing world (including China and Eastern Europe) in 1985. Using a lower poverty line of US$ 275, 630 million people were extremely poor. Nearly half of the developing world's poor, and nearly half of those in extreme poverty, lived in South Asia.

7. Since comparable numbers for rural poor were not available for recent years, FAO estimated the extent of rural poverty in 1987 using the World Bank estimates for the period around 1980 for a sample of 37 developing countries.

8. These estimates of rural poverty, together with those for the base year 1980, are shown in the following Table:

Table 1
Estimates of Incidence of Rural Poverty by Region in 1980 and 1987

REGION	1980		1987	
	No. of Rural Poor (000s)	Percentage of poor in Rural Population	Number of Rural Poor (000s)	Percentage of Poor in Rural Population
Sub-Saharan Africa	179,290	63.7	182,750	56.0
Near East and North Africa[1]	47,910	37.0	68,620	44.2
Asia and the Pacific[2]	495,010	51.8	506,320	47.7
Latin America and the Caribbean	60,860	50.7	51,270	41.9
Total	783,070	52.7	808,950	48.5

Note: All numbers are rounded.

1 Not much confidence can be placed in the estimates for this region, as they are based on a small sample of countries.

2 Excludes China.

9. There was a moderate reduction in the proportion of the poor in the rural population in 1987 relative to 1980. The total number of rural poor, however, increased over this period from 783 million to over 808 million. A large majority lived in Asia followed by sub-Saharan Africa.

(iv) Indicators of Social Development

10. Conventional estimates of incidence of rural poverty (as measured by the percentage of population below a poverty threshold) do not fully capture all aspects of deprivation which large numbers of people experience in developing countries. It is therefore necessary to supplement the analysis of rural poverty by a review of progress in poverty alleviation as measured by selected social indicators.

11. Considerable social progress has occurred in the developing world during the 1980s. Specifically, impressive achievements were made in reducing infant/child mortality, in raising life expectancy and in expanding primary school enrolments - in many cases, despite severe budgetary constraints. In sub-Saharan Africa, the median life expectancy rose from 47 years to about 51 years, in the Near East and North Africa from 59 to 64 years, in Latin America and the Caribbean from 65 to 66 years, and in Asia and the Pacific from 57 to 61 years, over the period 1978-80 to 1985-87. Median infant mortality during the period 1978-80 to 1985-87 fell from 126 to 112 in sub-Saharan Africa, from 102 to about 77 in the Near East and North Africa, from 59 to about 47 in Latin America and the Caribbean, and from 53 to a little over 46 in Asia and the Pacific. While in 1985 the median primary school enrolment ratio for sub-Saharan Africa was only 72 percent, the corresponding figures for all other regions were either above 100 (Latin America and the Caribbean) or close to 100 (the Near East and North Africa, and Asia and the Pacific). Yet disparities - often severe - persisted. In general, rural areas in most developing countries lagged behind urban areas in social progress. Women continued to be more deprived than men - particularly in some parts of Asia and the Pacific. There were indications, however, of new policy initiatives designed to remove such disparities.

12. Successes in improving the well-being of rural disadvantaged groups owed a great deal to government policies designed to stimulate growth, together with public provisioning of health care and education. It was remarkable that even some low-income countries (e.g. Sri Lanka) and lower middle-income countries (e.g. Botswana, Mauritius, Chile, Costa Rica and Jamaica) were able to provide effective public support to the poor in a variety of ways (e.g. access to food, health care) without necessarily waiting for national income to rise appreciably. This was accomplished not just by allocating a larger share of public expenditure to social services but by creating conditions for the poor to participate more fully in the growth process.

13. The key role of human capital formation in breaking the vicious circle of poverty - especially through education - was striking. Not only incomes but also health and nutritional status depended in important ways on education in rural areas. An important determinant of infant and child mortality, for example, was mother's education. While the level of public provisioning of health care and education was important, what perhaps mattered more was community participation in ensuring access of the poor to these services. Strengthening of such initiatives at the village level proved vital for the success of poverty alleviation programmes in rural areas.

CHAPTER 2

LANDLESSNESS, RURAL POVERTY AND AGRARIAN REFORMS

14. In rural areas of most developing countries, access to land and the distribution of land rights are of central importance in determining living standards. Land is also important in economic development with respect to its usage in production. Reforms targeted at improving the condition of the rural poor have therefore to address the issue of rights to land and to land use.

(i) Distribution and Rural Poverty

15. Recognizing the importance of access to land in a poverty alleviation strategy, many countries initiated programmes to distribute uncultivated land and reorganize production structures. Efforts by governments to improve the access of the poor to land, varied according to the land tenure system in effect, i.e. state property system, individual private property system, communal property system, or an open access system in which land-use rights are held by all. During the 1980s, there was a general trend in many developing countries towards individualization of ownership rights to land, though the extent to which this occurred varied substantially across countries. Notably in Africa, but also in some parts of Asia and the Pacific, many countries still had significant areas under communal tenure systems and open-access regimes. The amount of land under state ownership was also considerable. Transfers of land through rental or share-tenancy were widespread in parts of Asia, while such transfers also took place in other regions, for example, in newly irrigated areas in Africa.

16. The WCARRD country reports indicated that land rights continued to be distributed very unequally in many parts of the developing world. Several countries reported on programmes to distribute uncultivated public lands to the poor. However, in countries with a predominantly private property system, few efforts were made during the 1980s to increase the access of the rural poor to land.

17. The WCARRD country reports suggest that redistributive land reform waned during the 1980s. The success of land distribution programmes in raising productivity and incomes varied according to the availability of complementary inputs, infrastructure and the legal enforcement system necessary for the new settlers to become viable farmers. The limited land redistribution that occurred often benefited medium-sized farmers more than the poorest. High land ceilings, legal loopholes and weak implementation impeded progress. While these various reforms had a mixed record in improving the access of the poor to land, there was a perceptible shift in emphasis to improving the access of reform beneficiaries and other smallholders to complementary production inputs, particularly credit and improved technologies.

(ii) Tenancy Reform

18. Over the years, many developing countries have implemented tenancy reforms, including legislation to regulate property rights, land sales, land rentals and labour markets, in an effort to help alleviate poverty and improve equity. In addition, these various tenancy

reforms sought to improve productivity, enhance investment opportunities, and encourage better husbandry through the provision of greater tenure security.

19. During the 1980s, tenancy reforms and policies began to focus attention on improving land rental and sales markets in several Latin American and Caribbean countries. A major purpose of these programmes was to provide renters, squatters and former tenants with security of tenancy.

20. In Asia, in the wake of major policy changes started in China in 1979/1980, Laos and Viet Nam implemented far-reaching land tenancy reforms in 1988, making the farm household the basic production unit and issuing to families inheritable, long-term property rights (up to 50 years in Viet Nam).

21. Research in Africa suggests that most indigenous land tenure systems are adapting efficiently to changes in resource availability. These studies further suggest that rather than restricting land sales and rental markets with tenancy legislation or establishing costly land registration and titling programmes, policymakers can better assist by providing an appropriate legal and institutional environment for more efficient transactions.

(iii) Land Titling

22. A number of WCARRD reports recognized that tenure security was often vital for promoting long-term agricultural investments including environmentally sustainable land improvements. The granting of land titles in order to create collateral and improve access to credit was sometimes considered desirable regardless of the effect of titling on investment incentives. Land titling programmes however adversely affected some of the poor, because wealthier individuals often succeeded in obtaining greater rights than they had had under previous tenure rules, and because of the increased risk of landlessness, particularly among women, after implementation. The very high costs involved in acquiring titles many times effectively barred the poor from obtaining them. Being more influential and better informed, larger farmers and members of the urban elite sometimes obtained the major benefits of titling programmes. The granting of titles in order to create collateral did not have a discernible impact on credit use in Africa though titling improved small farmers' access to credit in some countries in other regions. Official support for group ownership of common property resources, especially among pastoralists (e.g. in Senegal and Angola), protected the access of the poor to vital forest, grazing and water resources.

(iv) Land, Employment and Poverty

23. Population growth and limited scope for extending the area of land cultivated as well as slow growth in employment opportunities elsewhere, led to a reduction in the size of holdings and to an increase in the landless rural population in many countries. As a consequence, many smallholders, as well as the landless, sought employment as wage labourers, either in agriculture or in off-farm occupations. Agricultural labour was common in many parts of Asia and Latin America. Most of these wage-earner households were poor. Incomes of agricultural labour households were affected by the introduction of new technologies which altered patterns of labour demand and wage rates.

24. Agricultural wage labour on farms was not the only source of labour income for the landless or for marginal farmers. Rural diversification and rising farm incomes, following technological changes, were associated with the expansion of non-farm employment opportunities in many rural areas. Off-farm employment was particularly important in providing work in slack seasons to those without permanent employment in the agricultural sector. Where such employment opportunities expanded, the link between poverty and lack of access to land became weaker.

CHAPTER 3

EMPLOYMENT, WAGES AND THE RURAL POOR

25. Remunerative employment opportunities are central to poverty alleviation in rural areas. To large numbers of rural poor - without control of other non-labour productive assets (including land) - wage employment is the only means of deriving an income. It is also a source of personal fulfilment and social recognition.

(i) Farm Employment

26. In rural areas, the dominant group in a majority of countries in each region consisted of employers and own-account workers on farms. Their share was highest in sub-Saharan Africa. The share of unpaid family workers, consisting mainly of women and children, was also comparatively large in this region, while wage labour was rather uncommon. Wage labour was much more common in other regions, where land holdings were far more concentrated and landlessness was widespread. There were wide variations within each region, however, in terms of both the importance of wage labour and changes in wage labour markets. In some Asian countries wage earners accounted for an increased share of total agricultural employment. Much of the growth of agricultural wage labour was in the form of casual employment.

27. Unemployment and underemployment rates for rural youth usually were higher than for the rest of the economically active population, although lower than those for urban youth. In Asia and sub-Saharan Africa, employment opportunities for youth were generally restricted to the family farm or family herds, while in Latin America they were also employed on commercial estates. Inevitably, there was a strong desire to migrate to urban areas to benefit from available social amenities and opportunities for better living standards.

28. Despite high levels of youth unemployment and underemployment, the use of child labour continued to be extensive in rural areas. Child participation rates were higher in the smallholder and landless groups. In sub-Saharan Africa, children supplemented family labour and worked up to 45 hours a week during the peak harvesting period. A further category of child labour, bonded labour, existed in Asia. Bonded children worked for large farmers and landowners, performing domestic and non-domestic tasks in lieu of partial payment of the family debt.

(ii) Non-farm Employment

29. Rural non-farm employment accounted for between 3 and 60 percent of the total employment in rural sub-Saharan Africa. Although highly variable, non-farm shares of rural employment in this region typically fell in the 10-20 percent range, in contrast to the 20-30 percent figures reported for Asia.

30. Examples from Asia and Africa pointed to the key role of agricultural growth in promoting non-farm activities. Some Indian evidence suggested that these linkages became stronger with agricultural development. Both production and consumption linkages grew substantially, aided by the rising input-intensity of agriculture and the growing incomes which

stimulated consumer diversification into non-food items. Both African and Indian examples indicated that promotion of small to medium farmer production generated greater non-farm incomes. Within non-farm activities, services and commerce grew more than household manufacturing.

(iii) Employment of Women in Rural Areas - Patterns and Trends

31. Despite its declining share, agriculture continued to be the main source of employment and livelihood for rural women in the 1980s, though non-farm employment also gained in importance. In agriculture, women participated primarily as unpaid family labour although in many countries, particularly in sub-Saharan Africa, they also engaged in separate agricultural or processing activities on their own account. Women also played an important role in livestock, fishing and forestry. In all types of animal production systems, women were predominant.

32. As regards women's participation in non-farm activities, they tended to engage in petty commodity production, trading and vending, home-based contract work and cottage industries. Many of these were part-time activities requiring little capital and skill, but the resulting income was usually significant for household survival. Factory production in rural areas, especially that geared towards exports (food processing, textiles, garments, etc.), opened new employment opportunities for rural women, particularly in South East Asia and Latin America.

(iv) Wages and Employment

33. Whether or not agricultural labourers were better off during the reporting period cannot be established conclusively from the limited and somewhat unreliable data. Higher wages were often not accompanied by higher employment. This is illustrated by an analysis, carried out specifically for this report, of wage and employment data for a small sample of developing countries during the periods 1980-85 and 1985-88.

34. The effects on agricultural wages of measures promoting inputs such as fertilizers and tractors were not necessarily negative. On the other hand, extension of irrigation and spread of HYV benefited agricultural wages, as did infrastructural development. Population growth did not necessarily dampen agricultural wages. Education and nutrition generally raised wages.

35. Acute inequalities in wage contracts and remunerations persisted. Casual labourers tended to be poorer than labourers on longer-term contracts. This was partly due to casual labourers' greater exposure to unemployment, sometimes lower wage rates, and their greater concentration among young workers and women. Casual workers were also most prone to wage variability. Wage differentials between male and female workers were the result of a complex set of factors, including differences in employers' criteria for assessing male-female productivity.

(v) Rural Public Works

36. Public employment schemes were used extensively in many sub-Saharan Africa countries. In South Asia, wage employment schemes in the form of rural works often formed the core of government anti-poverty strategies. The mainstay of India's anti-poverty strategy, for instance, consisted of a self-employment scheme called the Integrated Rural Development Programme (IRDP) and supplemental wage employment through public works such as the National Rural Employment Programme (NREP). The Employment Guarantee Scheme (EGS) in Maharashtra was distinct from many public employment schemes in that it guaranteed work to all registered workers within 15 days of work being demanded. Unlike other rural public works (RPW) programmes in South Asia and other parts of the developing world, which had a large direct employment impact over limited time periods, EGS generated a large number of rural jobs year after year.

37. Many countries in Latin America, used public works programmes to counter the temporary drops in labour demand that occurred during periods of structural adjustment or macroeconomic shocks. Most of these programmes were usually well targeted on the poor - including women.

38. RPW programmes were useful in several ways. First, because the poor earned supplemental income during lean seasons or droughts, they did not have to sell cattle or other assets to survive. Secondly, these programmes allowed people who would otherwise have had to migrate to stay in the rural areas. Thus, physical and human capital was retained in the rural sector. Third, most RPW created and maintained social infrastructure assets, such as roads, irrigation works and forests, although "leakages" of funds and "privatization" of benefits (insofar as outputs of some of these assets accrued mainly to the more affluent sections) were not uncommon.

39. Recent experience with RPW indicated possibilities for enhancing their effectiveness. For a given RPW outlay, a strong case exists for low wages and wide coverage when the objective is to minimize a measure of poverty which takes into account the number of poor and the intensity of their poverty.

(vi) Labour Legislation

40. In response to activities by labour unions and concerned groups, many governments enacted legislation to improve the working conditions of rural labourers. Minimum wage legislation was an important example. However, except in the case of plantation workers, such legislation was rarely effective. There was evidence of frequent violation of minimum wage norms. These violations involved not just payment of wages much lower than the stipulated minimum, but also inordinately long delays in payment.

41. Given the characteristics of rural labour, implementation of minimum wage laws was extremely difficult and the administrative machinery in most countries was simply not equal to the task. The seasonal nature of employment, the wide scatter of places of employment and the desperate poverty of the workers made implementation of the laws difficult.

(vii) Skill Formation

42. The need for skill formation in rural areas, combined with the concern that existing vocational training programmes needed to be reoriented, resulted in some new initiatives in many developing countries. A number of WCARRD country reports drew attention to the need for vocational training and education in rural areas and listed innovative measures undertaken to ensure greater access of rural youth - especially women - to such training programmes. Several countries developed vocational training programmes to promote the use of non-wood forest products by cottage industries. Such programmes stimulated the awareness of rural populations to new sources of income to be obtained from forests, thus raising their interest in the protection and management of forest resources.

CHAPTER 4

MARKETS, PRICES AND ACCESS TO INPUTS, SERVICES AND CREDIT

43. By the early 1980s, it became evident to many developing country governments that the policies they had been following needed to be radically changed. The most immediate pressures for change were financial. Other reasons for change included a perception that the hitherto disappointing performance of agriculture would improve with reform; pressure from lending bodies; and shifts in favour of pro-market policies, both at home and abroad. All these resulted in major changes in policy.

(i) Agricultural Policy Reform

44. Agricultural policy reforms which began in the 1980s had two major concerns. Efforts were made to reduce the price bias against agriculture by raising government-controlled prices and removing discriminatory controls altogether. In addition, by privatizing parastatals, or at least opening to competition the markets they had previously controlled, countries enlarged the role of the private sector. The success of these reforms in stimulating growth in some countries pointed to gains to be had from reducing the price bias against agriculture, and harnessing private entrepreneurial capacities to the tasks of processing and marketing.

45. Although agricultural growth took place as a result of policy reform, it is not yet clear whether this represented a one-off efficiency gain or a long-term increase in the growth rate. Available evidence does not, however, rule out the latter.

46. The reform process itself encountered various difficulties. In some cases, the supply response of farmers was disappointing, and at times the position of the poorest deteriorated on account of higher food prices. First, some difficulties arose from the way in which reform was implemented, including incorrect sequencing and incomplete implementation of reform. Second, there were cases where, due to an increased emphasis on the need for governments to limit their role (via price reform and privatization), there was a tendency to overlook the positive or enabling role required of the state in ensuring farmers' access to inputs and credit as well as transportation and market infrastructure. A third problem with the reform process was that in some cases insufficient attention was paid to the needs of the poor. Smallholders experienced difficulties in gaining access to the credit and inputs necessary to increase output in response to the improved price environment. Further, price reform often resulted in higher food prices as consumer subsidies and export taxes were scaled down, and net consumers of food were harmed.

(ii) Inputs, Services and New Technology

47. With population growth, and often only limited opportunities to extend the amount of land cultivated, it was increasingly common for countries to rely on technological advances to raise yields and per capita output. Governments increasingly provided incentives to promote more rapid and extensive adoption of innovations by farmers, especially smallholders.

48. A number of governments operated input subsidy programmes in an effort to counteract the disincentive effect of taxes on output. However, despite their contribution in some countries to the diffusion of new technologies, reliance on input subsidies gave rise to a number of problems. Because of the financial burden they imposed on governments, input subsidies were usually intended to be temporary. But once subsidies were established, it proved difficult to reduce them because of political pressures, even when the goal of widespread diffusion had been attained. Besides, government policies of subsidizing inputs aggravated rural inequalities as they often favoured heavy users of these inputs, such as larger farmers. Recent experience has also confirmed that encouraging the adoption of agricultural innovations and improved practices required not just the provision of subsidized inputs but a wide range of integrated support for agriculture.

(iii) Agricultural Research and Development

49. As well as assisting in the diffusion of existing technologies, governments also directed efforts to develop new technologies. Whereas international institutes undertook costly or complex research that was beyond the capacity of most national centres, the latter concentrated on research of direct relevance to local producers. In India, one of the main influences leading to the diffusion of high-yielding varieties was the effectiveness of national and regional research capacity. Also, largely as a result of national research efforts, China became the first developing country to mass-produce hybrid rice. However, research for the development of high-yielding varieties of other crops which are important foods for the poor, such as staple cereals (e.g. sorghum and millet) or tropical root crops (e.g. sweet potatoes, cassava and taro), was not as successful. This was a particular handicap for many parts of Africa where the area under cultivation of these crops was large.

(iv) Technological Change and the Poor

50. Evidence suggests that larger farmers were adopting new technologies more extensively and rapidly than small farmers. The latter were often disadvantaged relative to larger farmers in a number of ways, e.g., restricted credit access, risk aversion, and uncertainty of tenure.

51. The cultivation of new seed varieties often generated additional demand for labour in a number of farming activities. Where the landless constituted the bulk of the poor, the adoption of modern varieties was beneficial due to the increase in employment. However, the impact of modern varieties on wages received by labourers was not uniformly positive. For example, in some countries, following the introduction of new technologies and a consequent raising of land rents, an increase in the number of tenants seeking to supplement their income with casual labour had a depressing effect on the daily wage rate.

52. Where food prices declined as a result of improved technologies, the poor as consumers clearly benefited. On the other hand, the declining competitiveness of farmers in the backward regions led to reduced employment. Government policies played an important role in offsetting the adverse distributional consequences of the differential adoption of modern varieties through, for example, land reforms and allocation of research funds.

53. There was greater recognition that the constraints under which rural women work call for special measures, particularly in access to land, credit and extension. In some specific cases, the effects of new technologies on women were not altogether favourable.

(v) Rural Financial Markets

54. One major limiting factor in the access of the poor to productivity-increasing inputs was their restricted access to credit at reasonable interest rates. Governments attempted to provide low-interest loans to disadvantaged groups through credit subsidy and loan guarantee schemes. Often such schemes benefited the wealthier farmers. Women and the landless were largely left out. Many of these schemes became income transfers rather than credit programmes, unviable in the long term. Further, the establishment of the government as a source of subsidized funds removed incentives for financial institutions to develop widespread rural banking facilities.

55. Government programmes (e.g. in Indonesia, Pakistan and Nicaragua) to reduce high default risks and transaction costs were more successful. Default risks for the landless, and especially women, were minimized by relying on group lending, and collateral in the form of personal reputation, or non-land assets such as jewellery (e.g. Bangladesh, Thailand and Panama). Transaction costs were reduced by simplifying borrowing procedures and providing more service outlets.

CHAPTER 5

HUMAN RESOURCE DEVELOPMENT

56. The development of human resources is increasingly recognized not only as an end in itself but also as one of the most effective methods of combating poverty, since human capital enhances the productivity of the poor's most abundant and often only asset - labour. An analysis of progress in the public provision of basic services, e.g. health, education and agricultural extension for human resource development is therefore relevant. Since the rural poor are not only recipients of public services but also actors in the human development process, a review of recent efforts by countries to encourage and support rural organizations -such as cooperatives, workers' associations and women's organizations - in which the poor participate is also made.

(i) Health and Nutrition

57. Health and nutritional status in developing countries improved considerably in the last decade but the situation is still far from satisfactory. Significant differences remain between countries, between socio-economic groups, between urban and rural areas and between regions within countries depending on the level of socio-economic development and the level of provision of social and health services.

58. The WCARRD country reports indicate that improvements were due to a number of factors, which varied by country. These included: increased food supply and improved access to food through better distribution and communication systems, including street foods, enhanced budgetary allocations to the health sector, greater support for primary health services and preventive health care (such as immunization, prenatal care and distribution of Vitamin A capsules and iron tablets), use of low-cost, effective curative treatments (e.g. oral rehydration), better targeting of nutrition supplementation/food subsidy programmes, improved environmental hygiene and food safety (especially drinking water and sanitation), sensitization of the population (particularly women) to health problems and the need to seek early treatment, and increased awareness of nutritional needs and proper diet, particularly of young children.

59. As a result of the debt crisis and consequent adjustment programmes of the 1980s, many developing countries were under pressure to reduce social expenditure. While the evidence is inconclusive, many countries were able to avoid major cutbacks which would have seriously affected the health of the poor. Greater efficiency and rationalization of health interventions, as well as substitution of private for public health care, in part offset the decline in real government health expenditures.

(ii) Education

60. Many developing countries made impressive strides in primary school enrolments during the 1980s. Average public expenditures on education, as a percent of GDP, rose significantly in all developing regions from 1960 to 1986. During much of the 1980s in sub-

Saharan Africa, however, primary school enrolment increased less rapidly than the population of primary school-aged children, resulting in a decline in the expected years of schooling.

61. Little progress appeared to have been made in improving the equity of public expenditures on education in many countries. As a group, the developing countries spent over 25 times as much per student in higher education as in primary education, although 75 percent of the school-age population was enroled in primary education and 7 percent in higher education.

62. Many of the WCARRD country reports drew attention to attempts to reduce disparities between male and female educational attainments. It was increasingly recognized that female education was an important variable in reducing infant and child mortality, improving child nutritional and health status, and contributing to fertility decline. While many countries experimented with new approaches to encourage girls to attend and stay in school, the problem remained substantial.

(iii) Agricultural Extension

63. A survey of agricultural extension systems conducted by FAO in 1988-89 indicates that half of all agricultural extension organizations in developing countries were established or reorganized since 1970, and half of those in the last decade. Comparison with a similar survey in 1980 indicates significant increases in extension personnel during the 1980s in developing countries. More than 500,000 professional/technical extension staff were working in 92 developing countries. More than 70 percent of these workers were located in Asia and the Pacific Region.

64. Agricultural extension expenditures as a percent of agricultural GDP declined between 1980 and 1988, particularly in Africa where the figure fell from 1.17 percent in 1980 to 0.98 percent in 1988. Thus, as extension organizations proliferated in developing countries in the 1980s, average expenditures per extension worker declined. The downward trend of real public expenditures on agricultural extension was particularly serious in Africa.

65. Available evidence suggests that agricultural extension systems often did not serve smallholders and women farmers as effectively as large cultivators and male farmers. The bias against women was particularly striking, especially in Africa where the role of female labour in food and cash crop production, food processing, food storage, and marketing is critical.

66. Traditionally, agricultural extension services included dissemination of improved farming practices. More recently, however, some countries utilized their extension systems to disseminate information about other, broader aspects of rural development including population education, home management, kitchen garden production, child nutrition, household grain storage, community forestry, pond aquaculture, and livestock health. While this concept of integrated rural services aroused interest in recent years, its implementation in national agricultural extension systems was limited.

67. Active participation of farmers in extension programme development and extension activities was increasingly viewed as important to the programme's success. Participation by local communities helped ensure that programme content was relevant to the needs and interests of the farmers and increased the rate of adoption of new techniques and practices. In addition, farmer participation sometimes included cost-sharing, thus reducing the public cost of extension programmes.

(iv) People's Participation through Rural Organizations

68. Rural development in the 1980s was characterized by an expansion of rural organizations and grassroots initiatives, and a growing commitment on the part of governments to development approaches which involved disadvantaged segments of the rural population in the design and implementation of policies and programmes that affected their well-being.

69. Agricultural cooperatives continued to be the most common form of rural producer/service organization. By the late 1980s, some 175,000 agricultural cooperatives in developing countries, with over 30 million members, were affiliated with the International Cooperative Alliance. The WCARRD country reports indicated considerable progress in recent years in the decentralization of cooperative structures, and a reduction of government involvement in their management. Particularly impressive progress was made during the decade by the credit union movement in Africa, in mobilizing domestic savings and capital for investment purposes.

70. Evidence suggests that formal rural organizations were less effective in reaching the most disadvantaged rural groups with goods and services, and that these groups rarely played a significant role in the management and decision-making processes within the organizations. In some cases informal projects that worked with small, socially homogeneous groups of the poor were more effective (for example, the savings clubs in Zimbabwe, the Grameen Bank groups in Bangladesh, and small farmer groups in Nepal). Local and regional NGOs played an increasingly important role in stimulating and supporting such initiatives. International NGOs also enhanced their contribution to these activities in the last decade.

71. The sustainable management of natural resources such as water, soils, fisheries and forests was an area where numerous people's initiatives arose. Considerable improvement was made, for example, in water users' associations, thus making irrigation systems more responsive to farmers' needs. These and other related issues are discussed more fully in Chapter 6.

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CHAPTER 6

ENVIRONMENT, PUBLIC POLICY AND POVERTY

72. The 1980s witnessed increasing international recognition of the threat to sustainable agricultural and rural development posed by environmental degradation. Some of the environment-poverty linkages of growing concern to governments are discussed below. The role of public policies in influencing natural resource use and the inter-relationships with rural poverty is examined, with particular reference to economic policies; agricultural productivity, land degradation and poverty; the relationships between population, resource use and poverty and the importance of fostering participation by the rural poor in sustainable agricultural and rural development.

(i) Environment-Poverty Linkages

73. Rural poverty is generally seen as both a cause and consequence of environmental degradation in most developing countries. The relationship is, however, complex. Although there were many instances in recent years where the poor over-exploited and irreversibly degraded their natural resource base, there was also evidence of environmentally sound and often innovative ways in which the poor secured their livelihoods. These varied for different poverty groups and also for men and women within these groups. The effectiveness of these options, however, depended on the policy and institutional environment in which poor rural households operated.

74. There was growing recognition that the rural poor were not the only agents of environmental degradation. Serious and sometimes irreversible degradation often was caused by the non-poor through, for example, excessive or careless use of agro-chemicals, irrigation water and mechanical equipment, or over-exploitation of forests and fishstocks. These diverse experiences drew attention to the crucial role of public policies in influencing the distribution and use of natural resources.

(ii) Policy Issues

75. Public policies played a crucial role in influencing natural resource use by both the poor and non-poor. Unsustainable resource use was often exacerbated, if not directly caused, by inappropriate macro- and micro-economic/sectoral policies and market distortions which had unanticipated repercussions on the environment.

76. The environmental impact of macro-economic policies (such as exchange rate, monetary and fiscal policies) on both the poor and non-poor was often only indirect, while sectoral and/or micro-economic policies (such as agricultural pricing policies, subsidies and user charges) impinged more directly on poverty-environment linkages. The role of government policies and market distortions in causing massive deforestation has been well documented. Tax incentives not only failed to benefit the poor, but they raised the price of land to levels too high for the poor to buy. Although many of the tax and subsidy policies have been largely phased out in recent years and some improvements made to increase the sustainability of settlement schemes, they nonetheless caused considerable damage to the

rainforest and accentuated inequalities between rich and poor. Other evidence pointed to insufficient attention to reforestation and conservation in granting commercial logging licences, and in road and dam construction.

77. Micro-economic and sectoral policies aimed at developing marginal land produced mixed results. A number of countries used tax incentives and subsidies to promote large-scale mechanized cultivation. These frequently led to soil erosion and nutrient mining. In contrast, the WCARRD country reports indicate that many countries made efforts to increase the resilience of farm-livelihood systems for the poor in marginal areas, through tax and price incentives. A number of WCARRD country reports also indicated growing interest in environmental accounting and several countries were undertaking natural resource inventories.

(iii) Population, Resource Use and Poverty

78. The ways by which population growth affected the environment were complex. Economic and institutional policies played a crucial role in assisting the poor to intensify their production systems and/or diversify into non-farm employment, and thus avoid natural resource depletion and degradation.

79. Inappropriate use of modern productivity-enhancing technologies, particularly in well-endowed agro-ecological areas, often led to serious resource degradation by both the poor and non-poor. A number of countries responded by promoting ecologically sound, sustainable practices, such as integrated pest management, integrated plant nutrition, and improved techniques for water conservation and control of waterlogging. Attempts to improve productivity among smallholders in resource-poor areas were constrained largely by lack of major technological advances for such conditions and the inability of the poor to meet the high labour and financial costs of available production and resource conservation technologies.

80. Since population pressure in marginal areas was often due to inequitable land distribution, a number of countries pursued land reform and resettlement programmes in order to relieve demographic pressure on the environment, among other objectives. Although these programmes often failed to establish sustainable farming systems due to inadequate supporting policies, and physical and institutional infrastructure, some progress was nonetheless recorded. Community responses in adapting to increased pressure on common property resources while protecting both the access of the poor and the environment met with varying degrees of success.

(iv) People's Participation

81. There was increasing recognition that people's participation, in its collaborative and/or adversarial forms, is a vital factor in successful environmental conservation or rehabilitation. Strong, cohesive community organization plays an important role in maintaining sustainable common grazing lands, forests and irrigation systems. Successful activist or adversarial grassroots initiatives in organizing opposition to environmentally destructive practices were recorded in a number of countries.

82. These findings were consistent with the conclusions and recommendations of the Den Bosch Declaration and Agenda for Action on Sustainable Agriculture and Rural Development. These call for agricultural and supporting economic policies, as well as socio-economic reforms to improve equity and reduce poverty, such as increasing the access of the poor to land and other productive resources, developing and transferring sustainable agricultural technologies that build on traditional knowledge, expanding non-farm employment, and promoting effective participation of the rural population, particularly women, in the entire process.

CHAPTER 7

LESSONS FROM EXPERIENCE

The main findings and conclusions of the report can be summarized as follows:

(i) Rural Poverty Alleviation:

83. WCARRD country reports show that negative effects of structural adjustment programmes on the rural poor can be effectively minimized through appropriate government policies. Impressive improvements in social indicators (such as life expectancy, infant mortality rates, primary school enrolments and anthropometric measures of malnutrition) and a decline in the proportion of the poor in the total rural population can also be achieved through increased public expenditure for social services and improved targeting to the poor, even in low- and lower middle-income countries. Growth per se is not sufficient to alleviate poverty unless its benefits are widely disseminated through public provisioning of social services, employment creation and supportive economic and sectoral policies. The under-five mortality rate can be reduced significantly with increased female literacy and, to a lesser extent, improved access to general health services and safe drinking water.

84. However, considerable disparities in social indicators between rural and urban areas and between males and females with particular respect to school enrolment and literacy rates still persist. Thus, much greater effort is required in many countries to remove the bias against rural areas and women. Moreover, public participation in both collaborative and adversarial ways is often crucial in influencing the direction and effective implementation of poverty-oriented government policies.

(ii) Agrarian Reforms:

85. There is a strong justification for agrarian reforms on grounds of equity in view of the inequitable distribution of land in many parts of the world. The effective implementation of redistributive land reforms is, however, contingent on political will and introduction of complementary policies and measures to provide reform beneficiaries with improved technologies and supporting services.

86. Although tenure security is vital for promoting long-term agricultural investments including environmentally sustainable land improvements, formal land ownership titles are not essential for tenure security. Long-term leases or secure rights under communal tenure systems serve the same purpose. Studies in Africa suggest that rather than restricting land sales and rental markets with tenancy legislations or establishing costly land registration and titling programmes, policy-makers can better assist by providing an appropriate legal and institutional environment for more efficient transactions.

87. Land titling does not appear to have a discernible impact on credit use in Africa though it has promoted small farmers' access to credit in other regions. Land titling may adversely affect the poor: wealthier individuals sometimes obtain greater rights. The usual

practice of registering land in the name of household heads also tends to reduce women's customary rights over land use and transfer.

88. Where opportunities outside agriculture are few and market imperfections pervasive, legislation restricting land sales is likely to fail. Since common property resources (CPRs) provide vital sources of food, fuel, fodder and other natural products for the poor, measures to strengthen community rights to and management of CPRs are important elements in poverty alleviation strategies.

(iii) Employment:

89. Agricultural growth plays a key role in promoting non-farm activities and rural employment. Within non-farm activities, services and commerce are often more important than household manufacturing.

90. Efforts to rejuvenate and strengthen traditional community resource management systems operated by pastoralists, artisanal fisherfolk and people dependent on forest-based livelihoods have generally proved effective, low-cost ways of protecting/promoting employment and incomes for the poor.

91. There is growing recognition of the important roles played by women in household and own-account agricultural production and processing and in farm and non-farm wage labour. Since they are more likely than men to be engaged in casual labour contracts than permanent ones, generally earning 30-40 percent of men's wages, there is a need for further measures to reduce the bias against women.

92. Whether or not agricultural labourers were better off during the reporting period cannot be established conclusively from the limited data available. Higher wages were not necessarily accompanied by higher employment. However, evidence suggests that the spread of modern agricultural technologies (especially irrigation and HYVs), infrastructure development and improved education and nutrition generally have a positive effect on wage rates.

93. Public employment schemes have proved effective means of countering temporary drops in labour demand occurring in periods of structural adjustment or natural disasters such as famines. Experience indicates the need for careful targeting to reach the poorest and most vulnerable men and women.

94. Greater attention is needed to remove barriers to the effective implementation of labour legislation. Also, more innovative and concerted efforts are needed to reach rural youth and especially women in skill formation training programmes.

(iv) Markets, Prices, Inputs and Services:

95. Agricultural policy reforms involving a more limited government role (e.g. price liberalization, increased competitiveness and privatization) are generally more successful if governments exercise an enabling role in ensuring farmers' access to inputs and credit as well as transportation and market infrastructure. Experience indicates that encouraging the

adoption of agricultural innovations and improved practices requires more than the provision of subsidized inputs. A whole range of integrated support is required including credit, services, research, extension, infrastructure.

96. Special measures are generally needed to promote technology adoption by small farmers and check income disparities between regions which adopt modern technologies successfully and those which do not. Such measures include provision of credit and extension, land reform and measures to increase tenure security, and research on small farmer conditions in resource-poor agro-ecological areas. Particular attention is required to address women's special problems. A number of innovative programmes operating at the village level and often based on group lending and "social collateral" have proved effective in lowering transaction costs and default risks, thereby increasing credit access by small rural borrowers.

(v) Human Resource Development

97. Evidence suggests that disparities between rural and urban areas in the provision of health services, sanitation and safe drinking water can be reduced at all income levels through appropriate public policies.

98. Educational expenditures have often tended to favour higher rather than primary education. Evidence that primary schooling improves farm productivity, and that female education is an important variable in raising child health and nutritional status and contributing to fertility decline. This indicates the need in many countries to increase budgetary allocations to primary education and to promote women's education.

99. The needs of women farmers for agricultural extension services would be better served by increasing the currently small number of female extension staff and working with groups of rural women to reduce problems of communication between male extension staff and female farmers. Agricultural extension services would better serve small farmers if farmer/community participation in extension programme development and implementation were promoted.

100. The effectiveness of grassroots organizations (cooperatives, producers' associations, women's groups, for example) can be enhanced by promoting self-reliant, member-controlled people's organizations and strengthening the participation of the rural population - including women - in decision-making processes. In some cases projects that work with small, socially homogeneous groups are more effective than formal organizations in reaching the most disadvantaged rural groups. NGOs can play an important role in stimulating and supporting such initiatives. Since women generally represent a very small proportion of the membership of formal rural organizations, special attention is needed to promote their participation, particularly in decision-making processes, and to support development activities of women's groups.

(vi) Environment

101. Public policies play a crucial role in influencing the distribution of natural resources and their use by both the poor and non-poor. Tax and subsidy policies have often promoted

in the past unsustainable ranching or mechanized cultivation on forest or marginal land, and did not encourage adoption of water conservation practices in irrigation schemes. More finely tuned price and other incentives are needed to encourage the shift to more ecologically sound agro-forestry-livestock systems.

102. In conditions of increasing population density and land scarcity, public policies can play an important role in promoting judicious intensification of production and improved farming systems, with a view to avoiding environmental degradation. In such conditions, creation of off-farm employment opportunities can also be of particular importance.

103. Public policies, including subsidy and pricing policies and extension, can also help reduce environmental degradation caused by careless or over-use of productivity-enhancing technologies such as irrigation water and agro-chemicals. Environmentally sound practices or integrated pest management and integrated plant nutrition can improve efficiency while reducing pollution.

104. Greater attention is needed, both on environmental and equity grounds, for research and development of appropriate farming systems and technologies for resource-poor, environmentally degraded agro-ecological areas. It is also essential to provide the necessary agricultural inputs, services and infrastructure to enable the farmers in such areas to adopt improved farming systems, production technologies and conservation practices.

105. In conditions of marked inequalities in land distribution, land reforms can play an important role in relieving population pressure among the poor on environmentally fragile resources. Measures to improve tenure security also provide incentives for undertaking land improvements and conservation practices and the collateral for credit for financing the investment. Policies which support and encourage community management of common property resources (CPRs) generally lead to more ecologically sound management while protecting the access of the poor to vital sources of food, fodder, fuel and other natural products.

106. People's participation is vital to successful environmental conservation or rehabilitation. Efforts are therefore needed to support and strengthen existing community organizations or create new local institutions where they do not exist, to manage CPRs and encourage environmentally sound practices on private land.